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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/573,565

03/27/2006

Kazuyuki Yamane

2006\_0354A

7141

513

7590

10/28/2010

WENDEROTH, LIND & PONACK, L.L.P.

1030 15th Street, N.W.,

Suite 400 East

Washington, DC 20005-1503

EXAMINER

ROBITAILLE, JOHN P

ART UNIT

PAPER NUMBER

1744

NOTIFICATION DATE

DELIVERY MODE

10/28/2010

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ddalecki@wenderoth.com

coa@wenderoth.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/573,565	<b>Applicant(s)</b> YAMANE ET AL.	
	<b>Examiner</b> John P. Robitaille	<b>Art Unit</b> 1744	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 13 August 2010.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-5 and 7-9 is/are pending in the application.
- 4a) Of the above claim(s) 9 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5, 7 and 8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |                                                                                     |                                                                   |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                    | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)         | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____                                                         | 6) <input type="checkbox"/> Other: _____                          |

This action is in response to the request for continued examination received 13 August 2010. This action is directed to the amendment and remarks received 30 June 2010. Claims 1-5, 7-9 are pending. Claim 9 is withdrawn as nonelected.

## **DETAILED ACTION**

### ***Response to Amendment***

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-5, 7, & 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 5,853,639 (c et al., '639 hereafter) in view of U.S. Patent 6,245,437 (Shiiki et al., '437 hereafter) in view of attached Nonpatent Literature entitled "polymers.htm".

3. Regarding claim 1, '639 teaches a process for producing a transparent multilayer stretched product, comprising: providing a resin including at least one layer of polyglycolic acid (PGA) resin, heat-forming and cooling the resin, reheating the laminate to a temperature of Tc1 (crystallization temperature in the course of temperature increase) until the polyglycolic acid resin layer is crystallized, and then stretching the reheated resin laminate (C4L15-C4L25). '639 does not teach that the PGA is crystallized to opacity or that the PGA is part of a laminate.

Art Unit: 1744

4. Regarding the opacity of the PGA layer during the intermediate step, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to crystallize the PGA layer to opacity, since it has been held that a discovering an optimum value of a result effective variable involves only routine skill in the art. One would have been motivated to crystallize the PGA to full opacity for the purpose of ensuring crystallization of the PGA layer in order to impart gas barrier properties to the PGA layer. '639 teaches crystallization, without specifically stating % crystallization, in order to promote the barrier properties of the film. (See: In re Antonie 195 USPQ 233)

5. In the same field of endeavor, film production, '437 teaches the incorporation of a layer of PGA into a laminate sheet for the benefit of producing a film with the desired heat resistance and gas barrier properties. It would have been obvious to a person of ordinary skill in the art at the time of invention to combine the teachings of '639 with '437 for the benefit of producing a transparent film with heat resistance and transparency (ABSTRACT).

6. Regarding the intermediate haze, the previous art combination does not teach the haze of the laminate. It would have been obvious to one of ordinary skill in the art to ensure that the haze of the laminate was at least 40% prior to stretching, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. Because it was known at the time of invention that degree of haze is correlated to degree of crystallization (as taught by the attached non-patent literature

Art Unit: 1744

entitled "polymer.htm"), one would have been motivated to ensure that the haze was at least 40% in order to ensure that the PGA was sufficiently crystallized.

7. The above combination teaches all of the limitations of the claim except for the temperature range of reheating of the laminate. It would have been obvious to an artisan of ordinary skill in the art at the time of invention to adjust the prior art range given by Kawakami et al., since it has been held that where claimed ranges lie inside of or overlap the prior art ranges, a *prima facie* case of obviousness exists. (See MPEP 2144.05 and *In re Wertheim*, 191 USPQ 90)

8. Regarding the final haze of the laminate film, '639 teaches that the final film is clear (C8L26).

9. Regarding claim 2, '639 teaches that the resin laminate is transparent (C8L25).

10. Regarding claim 3, the previous art combination does not teach that the PGA is at most 10 wt.% of the laminate. It would have been obvious to one of ordinary skill in the art to use 10 wt. % or less PGA, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. One would have been motivated to use at most 10 wt. % of PGA for the benefit of providing a film laminate with sufficient gas barrier properties and biodegradability, as taught by '437 (C2L5-C2L15).

11. Regarding claim 3, '639 teaches the PGA content of the film should be about 20 %wt. (C11L60-C11L65). It would have been obvious to one of ordinary skill in the art to reduce the amount of PGA 10 wt. % or less PGA, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in

Art Unit: 1744

the art. One would have been motivated to use at most 10 wt. % of PGA for the benefit of increasing the durability of the film ('437: C2L5-C2L15).

12. Regarding claim 4, '639 teaches a process wherein the polyglycolic acid resin layer comprises a polyglycolic acid resin having a sufficiently high content of polymerized glycolic acid units as to exhibit a gas-barrier property (Table 2.).

13. Regarding claim 5, '639 teaches that the PGA comprises glycolic acid homopolymer (C3L54).

14. Regarding claim 7, '639 does not teach an aromatic polyester resin layer.

15. In the same field of endeavor, resin films, '437 teaches the use of polyester terephthalate for the benefit of providing a base layer for the PGA layer to rest on. It would have been obvious to a person of ordinary skill in the art at the time of invention to combine the teachings of '639 and '437 for the benefit of providing a gas impermeable, shrink resistant film.

16. Regarding claim 8, '639 does not teach an additional biodegradable layer.

17. In the same field of endeavor,, films, '437 teaches the use of additional biodegradable layers (C3L65) for the benefit of minimizing the environmental burden of the resin laminate. It would have been obvious to a person of ordinary skill in the art at the time of invention to combine the teachings of '639 and '437 for the benefit of minimizing the environmental burden of the resin laminate.

***Response to Arguments***

18. Applicant has argued that Kawakami et al. teach away from the claimed invention with respect to the reheating temperature. This argument is not persuasive, since Kawakami do teach the claimed limitation, albeit in a nonpreferred embodiment.

***Conclusion***

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John P. Robitaille whose telephone number is (571) 270-7006. The examiner can normally be reached on Monday to Thursday from 8:00 AM to 4:00 PM. The examiner can also be reached on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Yogendra Gupta can be reached on (571) 272-1316. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1744

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Yogendra N Gupta/  
Supervisory Patent Examiner, Art Unit 1791

JPR